Index of Claims

10
Example 11

Rejected — (Through numeral)
Cancelled

| Application/Contro | ol No. |
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10/519,672

MATSUHASHI ET AL.

Examiner

David E. Bochna

N

Art Unit

3679

Reexamination

Objected

Applicant(s)/Patent under

Non-Elected A Appeal

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|          |          | =              | Allowed      |              |                                     |              |                                                  | ÷                                   | Restricted                                       |          |   |              |          |                 |   |          | ı               | lr       | nte      | rfe      | rer      | ice           |   |              |            |
|----------|----------|----------------|--------------|--------------|-------------------------------------|--------------|--------------------------------------------------|-------------------------------------|--------------------------------------------------|----------|---|--------------|----------|-----------------|---|----------|-----------------|----------|----------|----------|----------|---------------|---|--------------|------------|
| Cla      | aim      | -              |              |              | ]                                   | Date         | e                                                |                                     |                                                  | _        |   | Cla          | aim      |                 |   |          |                 | ate      | 3        |          |          |               |   | Cla          | aim        |
| Final    | Originat | 10/13/06       |              |              |                                     |              |                                                  |                                     |                                                  |          |   | Final        | Original |                 |   |          |                 |          |          |          |          |               |   | Final        | Original   |
| <b> </b> | 1        | /              |              |              | $\vdash$                            | -            | H                                                | $\vdash$                            | <u> </u>                                         |          |   |              | 51       | $\dashv$        | _ |          |                 | _        |          |          |          | _             |   |              | 101        |
|          | 2        | J              |              |              |                                     |              |                                                  |                                     |                                                  |          |   |              | 52       |                 |   |          |                 |          |          |          |          |               |   |              | 102        |
|          | 3        |                |              |              |                                     |              |                                                  |                                     |                                                  |          |   |              | 53       |                 |   |          |                 |          |          |          |          |               |   |              | 103        |
|          | 4        |                |              |              |                                     |              | _                                                |                                     |                                                  |          |   |              | 54       |                 |   |          |                 |          |          |          |          |               |   |              | 104        |
|          | 5        |                | Ш            |              |                                     | _            |                                                  | _                                   | _                                                |          |   |              | 55       |                 |   |          |                 |          |          |          |          |               |   |              | 105        |
| L        | 6        |                |              |              |                                     | _            |                                                  | _                                   | L                                                | L        |   |              | 56       |                 |   |          |                 |          |          |          |          |               |   |              | 106        |
| <u> </u> | 7        | _              |              |              | <u> </u>                            | <u> </u>     | _                                                | <u> </u>                            | <u> </u>                                         |          |   |              | 57       | _               |   |          |                 |          |          | $\Box$   |          |               |   |              | 107        |
| ļ        | 8        | _              |              |              | L                                   | _            | _                                                | $ldsymbol{ldsymbol{ldsymbol{eta}}}$ | _                                                | _        |   | <u> </u>     | 58       | $\dashv$        |   |          | Ш               |          |          |          |          |               |   |              | 108        |
| ļ        | 9        | _              |              |              | <u> </u>                            | _            | <u> </u>                                         | <u> </u>                            | <u> </u>                                         |          |   | <u> </u>     | 59       | $\dashv$        |   | _        | Щ               |          |          |          |          | _             |   | $\vdash$     | 109        |
| ļ        | 10       | _              | _            | _            |                                     | -            |                                                  |                                     | <u> </u>                                         | _        |   |              | 60       | $\dashv$        |   |          | Н               |          |          |          |          |               |   |              | 110        |
| -        | 11       | _              | _            | <u> </u>     | <del> </del>                        |              | ├-                                               | <del> </del>                        | <del> </del>                                     | <u> </u> |   | <u> </u>     | 61       | $\vdash \vdash$ | _ |          | $\vdash$        |          |          |          |          |               |   | <b> </b>     | 111        |
|          | 12       |                | _            |              |                                     | _            | <u> </u>                                         | <u> </u>                            | <u> </u>                                         | _        |   | <u> </u>     | 62       | $\vdash$        |   |          | Н               |          |          |          |          | _             |   | <u> </u>     | 112<br>113 |
| -        | 13       |                | _            | -            |                                     | H            | ⊢                                                | $\vdash$                            | ⊢                                                | -        | 1 | <u> </u>     | 63       |                 |   |          | Н               |          | _        |          |          |               |   | $\vdash$     |            |
| -        | 14       | <u> </u>       | <u> </u>     | H            | <u> </u>                            | -            |                                                  | ⊢                                   | ⊢                                                |          | l | <u> </u>     | 64<br>65 | $\vdash$        |   |          | Н               |          |          |          |          |               |   | $\vdash$     | 114<br>115 |
|          | 16       | Η.             |              | -            |                                     | ⊢            | <del> </del>                                     | ⊢                                   | -                                                |          | ł | <b></b>      | 66       | $\vdash$        |   |          | Н               |          | _        | _        | _        | _             |   | -            | 116        |
| -        | 17       | -              | -            | $\vdash$     | ┝                                   | ├            | -                                                | ⊢                                   |                                                  | $\vdash$ |   | <u> </u>     | 67       |                 |   |          | $\vdash$        | _        |          |          |          |               |   |              | 117        |
|          | 18       |                | H            | _            |                                     | -            | ┢                                                | -                                   | -                                                | $\vdash$ | ł | <del> </del> | 68       |                 | - | _        | Н               |          | _        |          |          |               |   | $\vdash$     | 118        |
|          | 19       | H              | $\vdash$     | $\vdash$     |                                     | ⊢            | -                                                | -                                   | ├                                                |          | ł |              | 69       |                 |   |          | -               |          |          |          | -        |               |   |              | 119        |
| -        | 20       | $\vdash$       |              | _            |                                     | -            | H                                                | -                                   | -                                                |          |   |              | 70       |                 | _ | $\vdash$ | Н               |          |          |          |          |               |   |              | 120        |
|          | 21       | H              | -            | _            |                                     | H            | ┢                                                | $\vdash$                            | $\vdash$                                         | $\vdash$ |   |              | 71       |                 | _ | _        | Н               |          | -        |          |          |               |   | <u> </u>     | 121        |
| <b></b>  | 22       | $\vdash$       |              | $\vdash$     |                                     | -            | <del>                                     </del> | 1                                   | <del>                                     </del> | $\vdash$ |   | _            | 72       |                 |   |          | Н               | _        |          |          |          |               |   |              | 122        |
|          | 23       | $\vdash$       | Ė            |              | T                                   |              | H                                                |                                     | $\vdash$                                         | Н        |   |              | 73       | Н               |   |          |                 |          |          |          |          | $\overline{}$ |   |              | 123        |
| <b>—</b> | 24       | Т              |              |              |                                     |              | Н                                                | Г                                   |                                                  |          |   |              | 74       |                 |   |          |                 |          |          | _        |          |               |   |              | 124        |
|          | 25       |                |              |              |                                     | Т            | Г                                                |                                     | Т                                                |          |   | <b> </b>     | 75       |                 |   |          | П               |          |          | _        |          |               |   |              | 125        |
|          | 26       |                |              |              |                                     |              | T                                                | Г                                   | Г                                                |          | İ |              | 76       |                 |   |          |                 |          |          |          |          |               |   |              | 126        |
|          | 27       |                |              |              |                                     | П            |                                                  |                                     | Π                                                |          | İ |              | 77       |                 |   |          |                 |          |          |          |          |               |   |              | 127        |
|          | 28       |                |              |              |                                     | Г            | Г                                                | Г                                   | Г                                                |          | j |              | 78       |                 |   |          |                 |          |          |          |          |               |   |              | 128        |
|          | 29       |                |              |              |                                     |              |                                                  |                                     |                                                  |          | ] |              | 79       |                 |   |          |                 |          |          |          |          |               |   |              | 129        |
|          | 30       |                |              |              |                                     |              |                                                  |                                     |                                                  |          | ] |              | 80       |                 |   |          |                 |          |          |          |          |               |   |              | 130        |
|          | 31       |                |              |              |                                     |              |                                                  |                                     |                                                  |          | ] |              | 81       |                 |   |          |                 |          |          |          |          |               |   |              | 131        |
|          | 32       |                |              |              |                                     |              |                                                  |                                     |                                                  |          | ļ |              | 82       |                 |   |          |                 |          |          |          |          |               |   |              | 132        |
|          | 33       |                |              | L            | ــــــا                             | <u></u>      | _                                                |                                     |                                                  | <u> </u> | Į |              | 83       | Ш               |   |          | Щ               |          | L.       |          | _        | Ш             |   | L            | 133        |
|          | 34       |                |              |              | $ldsymbol{ldsymbol{ldsymbol{eta}}}$ | $oxed{oxed}$ | _                                                | <u> </u>                            | _                                                | L        |   |              | 84       | Ш               |   | L        | Щ               |          | $\Box$   | Ш        | L        | Щ             |   | L            | 134        |
|          | 35       |                |              | L            | L                                   | $oxed{oxed}$ | _                                                | _                                   |                                                  | <u> </u> |   | L            | 85       | Щ               |   | <u> </u> |                 |          |          |          |          | Ш             |   |              | 135        |
|          | 36       | _              |              |              |                                     | <u> </u>     | _                                                |                                     | _                                                | _        | ļ |              | 86       |                 |   |          |                 |          |          | ·        |          |               |   |              | 136        |
|          | 37       | _              | _            | L            | <u> </u>                            | <u> </u>     | <u> </u>                                         | <u> </u>                            | ├_                                               | <u> </u> |   | <u> </u>     | 87       | $\sqcup$        |   | Ь.       | $\sqcup$        | _        | <u> </u> | <u> </u> | <u> </u> | <u> </u>      |   |              | 137        |
| -        | 38       |                | $oxed{oxed}$ |              | <u> </u>                            | <u> </u>     | _                                                | _                                   | _                                                | <u> </u> |   |              | 88       | $\dashv$        |   |          |                 |          |          |          |          | _             |   |              | 138        |
|          | 39       | _              | <b> </b>     | <u> </u>     | <del> </del>                        | -            | <del> </del>                                     | <del> </del>                        |                                                  | <u> </u> |   | <u> </u>     | 89       | $\vdash \vdash$ |   | $\vdash$ | -               | _        | $\vdash$ | -        | <u> </u> | <b> </b>      |   |              | 139        |
| -        | 40       | <del> </del>   | <u> </u>     |              | <del> </del>                        | <del> </del> | <del> </del> —                                   |                                     | <u> </u>                                         | ⊢        |   |              | 90       | $\vdash$        |   | -        | Н               |          |          | -        | -        | <u> </u>      |   |              | 140        |
| -        | 41       | $\vdash$       | $\vdash$     | -            | -                                   | -            | ⊢                                                |                                     | _                                                | -        |   | <u> </u>     | 91       | $\vdash$        |   |          | $\vdash \vdash$ |          | -        | $\vdash$ | -        | <u> </u>      |   | <u> </u>     | 141<br>142 |
|          | 42       | <del> </del>   | -            | <del> </del> | $\vdash$                            | $\vdash$     | $\vdash$                                         | $\vdash$                            | -                                                | $\vdash$ |   |              | 92<br>93 | $\vdash$        | _ | <u> </u> | $\vdash$        | -        | -        | -        | H        | $\vdash$      |   | <del> </del> | 142        |
| <u> </u> | 44       | ├              | -            | ┝╌           | ⊢                                   | -            | $\vdash$                                         | -                                   | -                                                | ├        | 1 | -            | 94       | $\vdash$        |   | -        |                 | _        | Н        | $\vdash$ | $\vdash$ | $\vdash$      |   | $\vdash$     | 144        |
| $\vdash$ | 45       | <del> </del> — | $\vdash$     | $\vdash$     | $\vdash$                            | $\vdash$     | $\vdash$                                         | -                                   | $\vdash$                                         | -        | 1 | <del> </del> | 95       | $\vdash$        | _ |          | -               | -        | $\vdash$ | $\vdash$ | $\vdash$ | $\vdash$      |   | $\vdash$     | 145        |
| -        | 46       | $\vdash$       | <del> </del> | ├            | $\vdash$                            | ⊢            | <del> </del>                                     | -                                   | $\vdash$                                         | -        | 1 | $\vdash$     | 96       | $\vdash \vdash$ |   | $\vdash$ | $\vdash$        |          |          | $\vdash$ | -        | -             |   | <del></del>  | 146        |
| $\vdash$ | 47       |                | $\vdash$     | $\vdash$     | $\vdash$                            | $\vdash$     | $\vdash$                                         | $\vdash$                            | $\vdash$                                         | $\vdash$ | 1 | $\vdash$     | 97       | $\vdash\vdash$  |   | -        | -               | -        | $\vdash$ | $\vdash$ | -        | -             |   | <del> </del> | 147        |
| <u> </u> | 48       | -              | $\vdash$     | -            | -                                   | -            | $\vdash$                                         | $\vdash$                            | $\vdash$                                         | $\vdash$ | 1 | <u> </u>     | 98       | $\vdash$        | - | -        | -               | -        | H        | H        | ┝        | $\vdash$      | 1 | <b> </b>     | 148        |
|          | 1 70     | -              | _            | ⊢            | $\vdash$                            | <b>⊢</b>     | -                                                | -                                   | -                                                |          | l |              | 1 30     | $\vdash$        | _ | —        |                 | <u> </u> | ├        | -        | <b>—</b> | <b>!</b> —    | l |              | 170        |

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| CI          | aim                                                  | Date     |          |                                                  |          |          |          |              |                                                  |          |  |  |  |
|-------------|------------------------------------------------------|----------|----------|--------------------------------------------------|----------|----------|----------|--------------|--------------------------------------------------|----------|--|--|--|
| Cli         |                                                      | -        |          |                                                  | Jan      | -        | _        |              | Н                                                |          |  |  |  |
| Final       | Original                                             |          |          |                                                  | 51       |          |          |              |                                                  |          |  |  |  |
|             | 101<br>102                                           |          |          |                                                  |          |          |          |              |                                                  |          |  |  |  |
|             | 102                                                  |          |          |                                                  |          |          |          |              |                                                  |          |  |  |  |
|             | 103                                                  |          |          |                                                  |          |          |          |              |                                                  | Ш        |  |  |  |
|             | 104<br>105                                           |          |          |                                                  |          |          |          |              |                                                  | Щ        |  |  |  |
|             | 105                                                  |          |          |                                                  |          | _        | _        | <u> </u>     | _                                                | $\Box$   |  |  |  |
|             | 106<br>107                                           |          |          | _                                                | -        | _        | <u> </u> | <u> </u>     |                                                  | -        |  |  |  |
|             | 107                                                  |          |          |                                                  | -        |          | <u> </u> |              | $\vdash$                                         |          |  |  |  |
|             | 109                                                  |          |          |                                                  | -        |          | $\vdash$ | -            | ⊢                                                | Н        |  |  |  |
|             | 110                                                  | _        | _        | _                                                | -        | $\vdash$ | $\vdash$ | _            | ┢                                                |          |  |  |  |
|             | 111                                                  |          |          |                                                  |          |          |          |              |                                                  | П        |  |  |  |
|             | 112                                                  |          |          |                                                  |          |          |          |              |                                                  |          |  |  |  |
|             | 110<br>111<br>112<br>113<br>114<br>115               |          |          |                                                  |          |          |          |              |                                                  |          |  |  |  |
|             | 114                                                  |          |          |                                                  |          |          | 匚        |              |                                                  |          |  |  |  |
|             | 115                                                  |          |          |                                                  |          |          | <u> </u> |              | _                                                | Ш        |  |  |  |
|             | 116                                                  |          |          |                                                  |          |          | <u> </u> |              | _                                                | Щ        |  |  |  |
|             | 117<br>118                                           |          |          |                                                  |          | _        | <u> </u> | H            |                                                  | Щ        |  |  |  |
|             | 118                                                  |          | _        | _                                                |          | _        | ├        | Ľ            |                                                  | Н        |  |  |  |
|             | 119                                                  | _        | _        | $\vdash$                                         | -        |          | ├-       | _            | -                                                | Н        |  |  |  |
|             | 121                                                  |          |          |                                                  | $\vdash$ | -        | -        |              |                                                  | Н        |  |  |  |
|             | 122                                                  |          |          | -                                                |          | _        | ┝        |              | -                                                | $\vdash$ |  |  |  |
|             | 120<br>121<br>122<br>123<br>124<br>125<br>126<br>127 |          | _        | -                                                | $\vdash$ |          | -        | <del> </del> | $\vdash$                                         | H        |  |  |  |
|             | 124                                                  |          | -        |                                                  |          |          | _        |              |                                                  | П        |  |  |  |
|             | 125                                                  |          |          |                                                  |          |          |          |              |                                                  | П        |  |  |  |
|             | 126                                                  |          |          |                                                  |          |          |          |              |                                                  |          |  |  |  |
|             | 127                                                  |          |          |                                                  |          |          | L        |              |                                                  |          |  |  |  |
|             | 128<br>129<br>130                                    |          |          |                                                  |          |          | L_       |              | <u> </u>                                         | Щ        |  |  |  |
|             | 129                                                  |          | _        |                                                  | _        |          | ļ        |              | <u> </u>                                         | Щ        |  |  |  |
|             | 130                                                  |          |          | <u> </u>                                         |          | <u> </u> | <u> </u> |              | <u> </u>                                         | Щ        |  |  |  |
|             | 131                                                  | -        | $\vdash$ | -                                                | _        | <u> </u> |          | -            | ⊢                                                | Н        |  |  |  |
|             | 132                                                  | <u> </u> |          |                                                  | -        |          | _        | -            |                                                  | Н        |  |  |  |
|             | 134                                                  |          | _        | ├                                                | ┝        | ┝        | -        | $\vdash$     | -                                                | Н        |  |  |  |
|             | 133<br>134<br>135                                    | $\vdash$ | _        | H                                                | Ι        | $\vdash$ |          | $\vdash$     | ┢                                                | Н        |  |  |  |
|             | 136                                                  | _        |          |                                                  | _        | $\vdash$ |          |              |                                                  | П        |  |  |  |
|             | 137                                                  |          |          |                                                  |          |          |          |              |                                                  |          |  |  |  |
|             | 138                                                  |          |          |                                                  |          |          |          |              |                                                  |          |  |  |  |
|             | 139                                                  |          |          |                                                  |          |          |          |              |                                                  |          |  |  |  |
|             | 140                                                  |          |          |                                                  | L_       |          | L        | _            | _                                                | Щ        |  |  |  |
|             | 141                                                  |          |          | _                                                | L_       | <u> </u> | <u> </u> | _            | <u> </u>                                         | Щ        |  |  |  |
|             | 142                                                  | _        |          | -                                                |          | _        | ├-       | $\vdash$     | $\vdash$                                         | $\sqcup$ |  |  |  |
|             | 143                                                  |          | -        | ⊢                                                | $\vdash$ | $\vdash$ | $\vdash$ | <del> </del> | <del>                                     </del> | ⊢┤       |  |  |  |
|             | 144<br>145                                           | $\vdash$ | -        | $\vdash$                                         | -        | -        | -        | -            | ├                                                | H        |  |  |  |
| <del></del> | 146                                                  | $\vdash$ | ├        | ├                                                | ┢        | -        | -        | $\vdash$     | $\vdash$                                         | Н        |  |  |  |
|             | 147                                                  | H        | ┢        | <del>                                     </del> | $\vdash$ | $\vdash$ | -        | $\vdash$     |                                                  | Н        |  |  |  |
|             | 148                                                  | H        | -        |                                                  | $\vdash$ | $\vdash$ | T        | $\vdash$     | Г                                                | Н        |  |  |  |
|             | 149                                                  |          | Г        | <u> </u>                                         | Γ        | Г        | Τ        |              |                                                  | П        |  |  |  |
|             | 150                                                  |          |          |                                                  |          |          | Г        |              |                                                  |          |  |  |  |
|             |                                                      |          |          |                                                  |          |          | -        | •            |                                                  |          |  |  |  |

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